

- 1 What is claimed is:
- 2 1. A method for logging events independently and separately from other
- 3 processes in a computer system, comprising:
- 4 initiating an event, wherein the event is a process executed on a
- 5 computer system;
- 6 creating a log entry, wherein the log entry comprises information that
- 7 describes the event;
- 8 requesting that the log entry information be written to a log file,
- 9 whereby the consumer surrenders control of the log entry, pausing execution
- 10 of the event; and
- 11 releasing control of the log entry to the consumer, so that execution
- 12 of the event can resume, prior to writing the log entry information to the log
- 13 file, wherein releasing control of the log entry to the consumer comprises:
- 14 cloning the log entry, wherein the log entry clone is a copy of
- 15 the log entry that comprises the log entry information.
- 16
- 17 2. The method of claim 1, wherein the cloning step is performed by a
- 18 multiple-threaded log manager.
- 19
- 20 3. The method of claim 1, further comprising:
- 21 queuing the log entry clone in a queue that determines when the log
- 22 entry information is written to the log file.
- 23
- 24 4. The method of claim 3, wherein the queue is a first in, first out queue.
- 25
- 26 5. The method of claim 3, wherein at some time the log entry clone has a turn,
- 27 the method further comprising:
- 28 determining if the log entry clone is next in the queue; and,
- 29 if the log entry clone is next in the queue, writing the log entry
- 30 information to log file.
- 31
- 32 6. The method of claim 1, wherein the log entry is an object comprising
- 33 attributes populated with the log entry information.
- 34

- 1           7.     The method of claim 1, wherein the event is a configuration event.
- 2
- 3           8.     The method of claim 1, wherein the consumer is a client.
- 4
- 5           9.     The method of claim 1, wherein the event is a task event, the method further
- 6     comprising:
- 7                 starting a log transaction, wherein starting a log transaction
- 8                 comprises a consumer sending a message that a sequence of related task log
- 9                 entries are to be sent.
- 10
- 11          10.    The method of claim 9, further comprising
- 12                 determining if the task event has ended, wherein the end of the task
- 13                 event comprises the completion of the task event or a failure to complete the
- 14                 task event; and,
- 15                 if the task event has ended, terminating the log transaction, wherein
- 16                 terminating the log transaction indicates that a sequence of log entries
- 17                 associated with the task event has ended and that the log file may be rolled-
- 18                 over without interrupting logging of the task event.
- 19
- 20          11.    The method of claim 9, wherein the consumer is a task manager.
- 21
- 22          12.    A computer readable medium containing instructions for logging events
- 23     independently and separately from other processes in a computer system, by:
- 24                 a consumer initiating an event, wherein the event is a process
- 25                 executed on a computer system;
- 26                 creating a log entry, wherein the log entry comprises information that
- 27                 describes the event;
- 28                 requesting that the log entry information be written to a log file,
- 29                 whereby the consumer surrenders control of the log entry, pausing execution
- 30                 of the event; and,
- 31                 releasing control of the log entry to the consumer, so that
- 32                 execution of the event can resume, prior to writing the log entry
- 33                 information to the log file.
- 34

1 13. The computer readable medium of claim 12, wherein releasing control of  
2 the log entry to the consumer comprises:

3 cloning the log entry, wherein the log entry clone is a copy of the log  
4 entry that comprises the log entry information.  
5

6 14. The computer readable medium of claim 13, further comprising instructions  
7 for logging events entries independently and separately from other processes in a  
8 computer system, by:

9 queuing the log entry clone in a queue that determines when the log  
10 entry information is written to the log file.  
11

12 15. The computer readable medium of claim 14, wherein the log entry clone has  
13 a turn, further comprising instructions for logging events entries independently and  
14 separately from other processes in a computer system, by:

15 determining if the log entry clone is next in the queue; and,  
16 if the log entry clone is next in the queue, writing the log entry  
17 information to log file.  
18

19 16. The computer readable medium of claim 12, wherein the log entry is an  
20 object comprising attributes populated with the log entry information.  
21

22 17. A computer system that supports logging events independently and  
23 separately from other processes in a computer system, comprising:

24 a memory, that stores an application;  
25 a secondary storage device comprising a log file;  
26 a processor that runs the application, wherein the application  
27 comprises:

28 a consumer, wherein the consumer initiates an event that is a  
29 process executed by the processor, creates a log entry comprising  
30 information that describes the event, and requests that the log entry  
31 information be written to the log file;

32 a multiple-threaded log manager, wherein the log manager,  
33 independently and separately from other processes, logs events, by:

1 receiving the log entry from the consumer, thereby  
2 obtaining control of the log entry and pausing execution of  
3 the event; and,  
4 releasing control of the log entry to the consumer, so  
5 that execution of the event can resume, prior to writing the  
6 log entry information to the log file.  
7

8 18. The computer system of claim 17, wherein releasing control of the log entry  
9 to the consumer comprises:

10 the log manager cloning the log entry, wherein the log entry  
11 clone is a copy of the log entry that comprises the log entry  
12 information.  
13

14 19. The computer system of claim 17, wherein the consumer is a task manager.  
15

16 20. The computer system of claim 17, wherein the log entry is an object that  
17 comprises attributes which are populated with the log entry information.  
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